Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended): A microarray comprising:

a support; on which is disposed;

a layer of microspheres bearing biological probes; wherein said microspheres comprise at least one material with a non-fluorescent latent color that can be developed and used to identify said microsphere.

2 (currently amended): The microarray of claim 1 wherein the microspheres are arranged on the support in random ~~or in orderly~~ distribution.

3 (original): The microarray of claim 1 wherein the latent colorant is capable of being developed to an optical signature.

4 (currently amended): The microarray of claim 3 wherein the optical signature is ~~fluorescence,~~ absorbance~~, or chemiluminescence~~.

5 (original): The microarray of claim 3 wherein the latent colorant is capable of being developed to an optical signature by chemical or physical means.

6 (original): The microarray of claim 5 wherein the chemical means is condensation reaction, acid-base reaction, redox reaction, abstraction reaction, addition reaction, elimination reaction, concerted reaction, chain propagated reaction, complexation reaction, molecular coupling reaction, rearrangement, or a combination of two or more of the foregoing.

7 (original): The microarray of claim 5 wherein the physical means is a photo initiated process, a thermo initiated process, an ionizing radiation initiated process, an electron beam initiated process, an electrical

initiated process, a pressure initiated process, a magnetic initiated process, an ultrasound initiated or a combination of two or more of the foregoing.

8 (original): The microarray of claim 3 wherein the optical signature can be used to identify a target analyte.

9 (original): The microarray of claim 1 wherein the material with a latent color is a leuco dye, a precursor of a leuco dye, a photographic coupler, a metal complexing ligand, a photochromic dye, or a thermochromic dye.

10 (original): The microarray of claim 1 wherein the biological probe is bioactive.

11 (original): The microarray of claim 10 wherein the bioactive probe comprises polynucleotide, polypeptide, polysaccharides, or small synthetic molecules.

12 (original): The microarray of claim 1 wherein the microspheres are immobilized on a two dimensional support by chemical or physical interactions.

13 (original): The microarray of claim 1 wherein the microspheres are immobilized on a two dimensional support by a gelation process.

14 (original): The microarray of claim 1 wherein the microspheres have a mean diameter of 1 to 50 microns.

15 (original): The microarray of claim 1 wherein the microspheres have a mean diameter of 5 to 20 microns.

16 (original): The microarray of claim 1 wherein the concentration of microspheres on the support is 100 to a million per cm2.

17 (original): The microarray of claim 1 wherein the concentration of microspheres on the support is 10,000 to 100,000 per cm2.

18 (withdrawn): A method of identifying biological analytes, the method comprising the steps of:

providing an array of microspheres comprising latent colorants and biological probes;

making contact between said microspheres and said biological analytes, the analytes being labeled with optical emission tags;

allowing interaction between the biological analytes and the probes;

washing the array to remove unbound analytes;

recording signals from the optical emission tags, said signals generated from the binding of probe and analyte, and recording said signals as Image A;

developing the latent compounds in the microspheres into detectable optical signatures;

recording the optical signatures as Image B; and

comparing Images A and B to determine the identities and concentrations of the biological targets.

19 (withdrawn): A method of identifying biological analytes, the method comprising the steps of:

providing microspheres that contain latent colorants and bear biological probes on their surfaces;

making contact between the microspheres and analytes, wherein the analytes are labeled with optical emission tags;

allowing interaction between the biological probes and the analytes;

washing microspheres to remove unbound analytes;

immobilizing said microspheres on a 2-dimensional surface of a support to form a microarray;

measuring signals from the optical emission tags, said signals generated from the interaction of probe and analyte, and recording the signals as Image A;

developing the latent colorants in the microspheres into detectable optical signatures and recording the signatures as Image B; and

comparing Images A and B to determine the identity and concentration of the analytes.